

**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Sadie Greene Not acting herself, finicky eating, panting excessively. Proteinuria controlled w/Benazepine. Current meds: Atopica 50mg eod; Benazepril 5mg sid

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Alkp 795, Trig 355, amylase 1356; PSL 284, USG 1.012, Prot 1+; PH 5.0; ma 15.1 UPC 0.8

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Cocker Spaniel **Urinary System**

**SEX** The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses, or cystic calculi.

Spayed Female

**AGE** The left kidney has a normal shape and size (5.53 cm) with numerous cortical cysts. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

12.5 yrs

**WEIGHT** The right kidney has a normal shape and size (5.68 cm) with numerous small cortical cysts. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex: medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

31.3lbs

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**Adrenal Glands**

The left adrenal gland is normal/" plump" in size measuring 0.80 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**IMAGING PERFORMED BY**

Shari Reffi, CVT

The right adrenal gland is normal/" plump" in size measuring 0.87 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Newton Vet

**Spleen**

The spleen is subjectively normal in size and the echotexture is homogenous. The splenic capsule is smooth with no visible irregularities. Rare discrete focal hyperechoic, perivascular parenchymal abnormalities are present. The appearance of these lesions is most consistent with benign splenic myelolipomas. The blood flow through the hilus and splenic parenchyma appears normal.

**REFERRING VET**

Dr. Wyman-Greenwald

**Liver**

**INVOICE** The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a moderate size iso to hyperechoic ill defined mass effect visualized within the parenchyma measuring 3.58 cm x 3.86 cm. Additionally, there is a slightly hypoechoic nodule visualized measuring 0.90 cm x 0.95 cm.

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The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

**Gastrointestinal**



**PATIENT**

Sadie Greene

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

**SPECIES**

Canine

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with mild mucosal speckling. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed. Duodenum measures 0.53 cm and the jejunum measures 0.47 cm.

**BREED**

Cocker Spaniel

**SEX**

Spayed Female

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**AGE**

12.5 yrs

**Pancreas**

The pancreas is large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild pancreatitis.

**WEIGHT**

31.3lbs

**Free Abdomen**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

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**PRIMARY FINDINGS**

- Decreased corticomedullary distinction in both kidneys with numerous small cortical cysts. The bilateral renal findings are consistent with age-related change.
- Hypoechoic prominent pancreas with mildly hyperechoic mesentery surroundings. The pancreatic changes are most consistent with mild pancreatitis/pancreatic infiltration. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- Large heterogenous irregular liver with isoechoic nodules and a mass effect. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The nodules and mass lesions have minimal criteria for malignancy, these could represent benign or less likely neoplastic lesions.
- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.
- Borderline bilateral adrenomegaly. The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Mild mucosal speckling visualized associated with the small intestine. Bright mucosal

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speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc. in the mucosal crypts.

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Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The changes observed in the kidneys are consistent with the currently diagnosed chronic renal disease. Recommend a blood pressure, urinalysis, and culture, if not already done.

**BREED**

Cocker Spaniel

The pancreas appears somewhat mildly prominent hypoechoic with mildly hyperechoic mesentery surroundings. These changes could be consistent with mild pancreatitis. Correlate with quantitative CPLI level and consider supportive treatment for pancreatitis.

**SEX**

Spayed Female

The changes of observed in the liver are somewhat non-specific and could be consistent with a vacuolar hepatopathy and regenerative nodules. Although, some of these are rather large. If there is concern for underlying liver disease consider liver function test and a fine needle aspirate of the liver.

**AGE**

12.5 yrs

The adrenals appear slightly "plump" for a dog of this size, if there are clinical signs of Cushing's disease adrenal function testing could be considered when this patient is feeling better.

**WEIGHT**

31.3lbs

There is mild mucosal speckling visualized associated with the small bowel. This can be seen in some types of primary gastrointestinal disease. Consider further work up for gastrointestinal disease with a GI panel Texas A&M for a qualitative PLI/TLI, cobalamin, and folate looking for additional information. If GI signs persist, then primary gastrointestinal disease is suspected consider further evaluation.

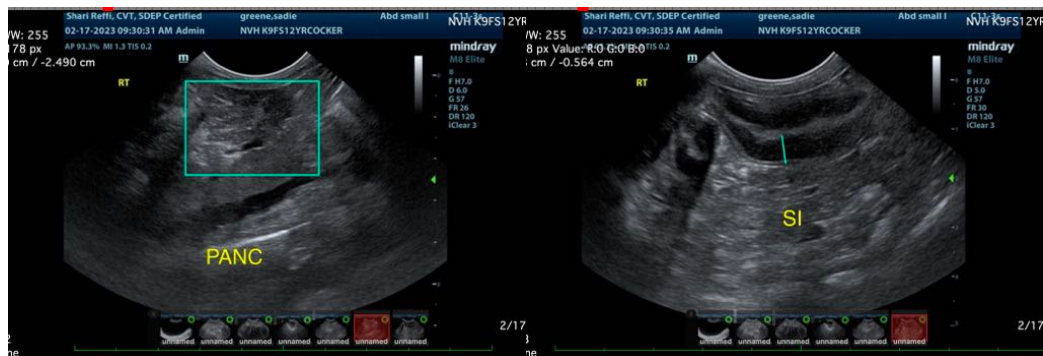
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Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

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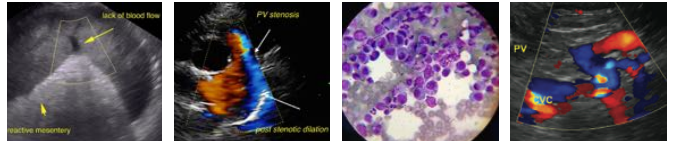


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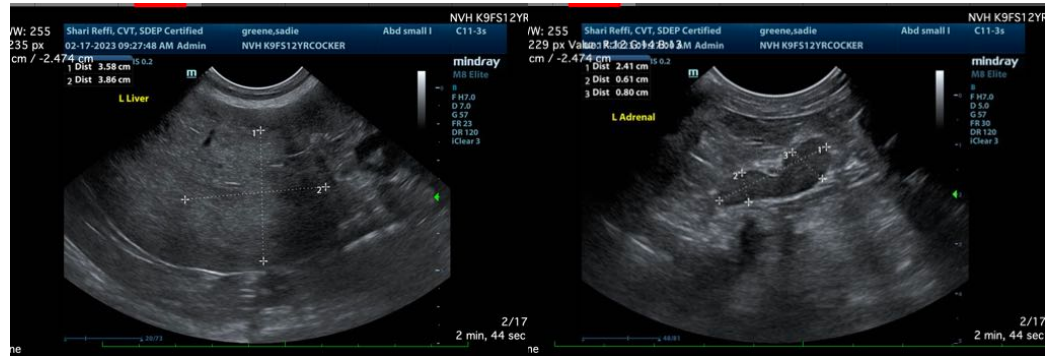
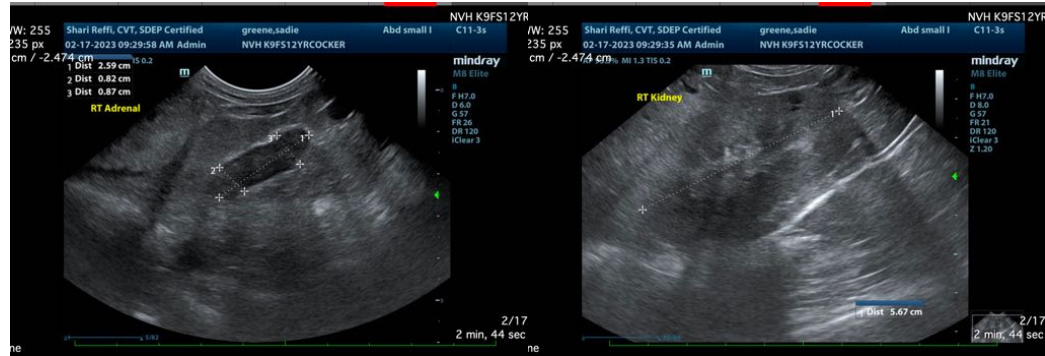
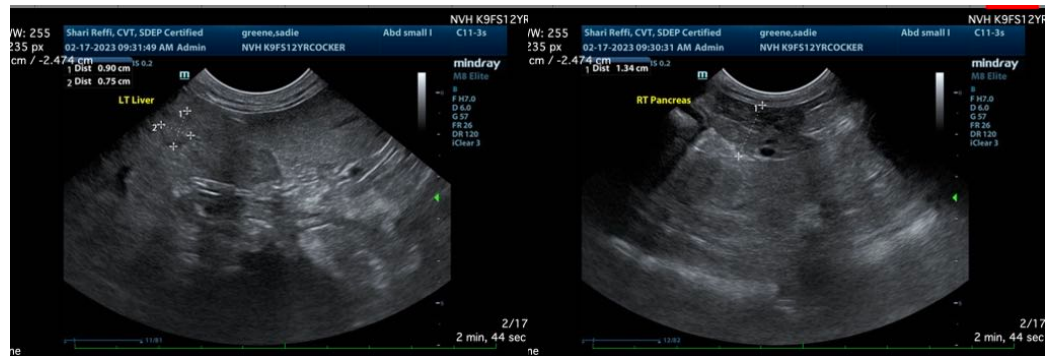
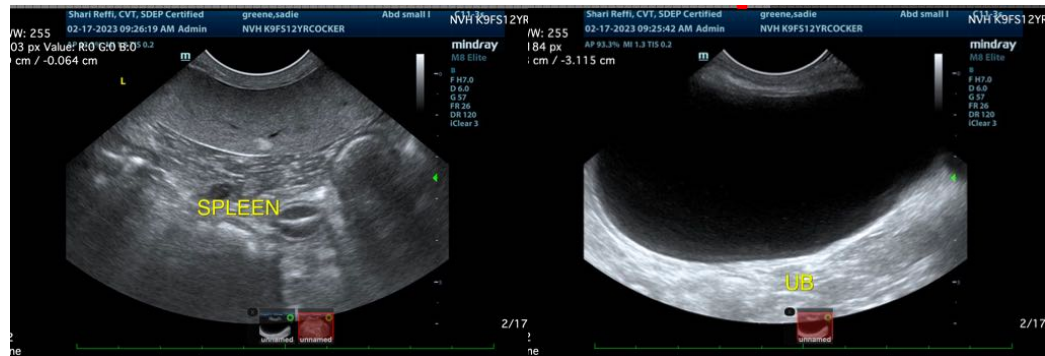
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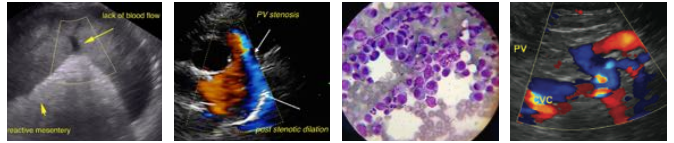
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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